



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
WASHINGTON, D.C. 20590
WWW.USPTO.GOV

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 980,938	12 06 2001	Yasushi Kishimoto	04202 0145	1921

7590 09 24 2002

Finnegan Henderson Farabow
Garrett & Dunner
1300 I Street N.W.
Washington, DC 20005

EXAMINER

BETTENDORF, JUSTIN P

ART UNIT PAPER NUMBER

2817

DATE MAILED: 09 24 2002

Please find below and or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980.938

Applicant(s)

KISHIMOTO ET AL

Examiner

Justin P. Bettendorf

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2001
- 2a) ☐ This action is **FINAL** 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 18-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 18-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 06 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2

- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other

DETAILED ACTION

Drawings


1 Figures 18 and 19 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3 This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

 4 Claims 18-22 and ~~34~~-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. United States Patent Application Publication No. US 2001/0017576 in view of applicant's admitted prior art figure 18 and description thereof (hereinafter "AAPA figure 18").

Kondo et al. discloses in figure 2 an integrated isolator/amplifier that includes a APC circuit 25. Figure 3 discloses a physical embodiment with a permanent magnet 40, an electrode assembly 39 with ferrite body 38 therein; terminals 39a-39c; and a plurality of load capacitors formed in the substrate (see figure 4b element 43 and alternate embodiments in figure 5c and 5d elements 64, 65, 65'). The reference further discloses that inductors may be formed within the substrate 50 to form a CLC input matching circuit (see page 5 [0071]) and output matching circuit connected to the transistor amplifier (see figures 11 and 12). However, the reference does not show two magnetically coupled transmission lines in the substrate of the load capacitors.

As noted in AAPA figure 18, APC signal is provided by a coupler (i.e. magnetically coupled transmission lines)

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have substituted a coupler comprising magnetically coupled transmission lines as taught by AAPA figure 18 in place of the generic APC means in the isolator/amplifier module of Kondo et al. because, as the Kondo et al. reference is silent on the exact APC means, any art-recognized equivalent APC means would have been usable therewith such as the well-known APC means of AAPA figure 18. With respect to claim 22, forming the central conductors from a copper plate with extended conductors is conventional; therefore use thereof would have been obvious substitution of art-recognized equivalent conductor assemblies. Also, with respect to divided capacitor electrodes, figure 5c of Kondo et al. shows such an arrangement and figure 6b shows the ground electrode on the bottom surface.

5 Claims 23-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. /AAPA figure 18 as applied above, and further in view of Kono United States Patent No. 5,929,722.

As noted above, the Kondo et al. /AAPA figure 18 combination suggests an integrated isolator/amplifier with load capacitors and a coupler built with low pass filter matching circuits on the input and output of the amplifier (see page 5, [0067] and [0071] and figures 11 and 12) therein but does not disclose a low-pass filter combined with the coupler and the coupler features.

The Kono reference discloses combining a low pass filter with a coupler in the laminate sharing the inductor with the low pass filter to decrease the number of parts (see abstract and figures 1B and 2A).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have substituted the low pass filter and magnetic coupler of Kono in place of the low pass filter matching circuit of Kondo et al. /AAPA figure 18 because such a modification would have advantageously reduced the number of separate parts thereby suggesting the obviousness of the modification.

Conclusion

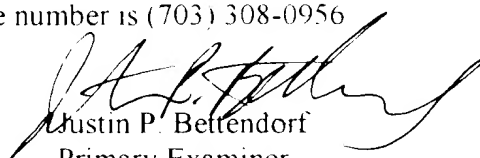
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,222,425 to Okada et al. teaches forming a directional coupler with an isolator (col. 8, lines 21-27).

Art Unit 2817

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin P. Bettendorf whose telephone number is (703) 308-2780. The examiner can normally be reached on 6:00-3:30 (M-F, 1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal, can be reached on (703) 308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Justin P. Bettendorf
Primary Examiner
Art Unit 2817

jpb
September 20, 2002